



Q&A Regarding the Mahomet Aquifer and Sole Source Aquifer Designation

Q: Why is the Mahomet Aquifer important and why should it be designated as a "sole source aquifer?"

A: The Mahomet Aquifer is an economically important, regional drinking water supply. It is the primary source of drinking water for municipalities and homeowners in 14 Illinois counties. Beyond its use for drinking water, it is a critical resource for the many self-supplied commercial, industrial, and agricultural users that rely upon it for cooling, process water, and crop irrigation.

According to the Illinois State Water Survey, the Aquifer provides an estimated 220 million gallons of water per day to communities, industry, agriculture, and rural wells in Illinois.

In the future more communities may rely on the Mahomet Aquifer as a source of water. Because surface waters in this part of the state are vulnerable to drought, the larger communities in the region, including Bloomington and Decatur, have already identified the Mahomet Aquifer in their long-term supply plans. In this area of Illinois, the Mahomet Aquifer is also the water source that most communities plan on using to meet future growth in demand.

Protecting the Aquifer is critically important to us and to future generations. Decisions made now may affect our water supply years from now.

Q: What is a sole source aquifer?

A: A sole source aquifer (SSA) is an underground water supply designated by the U.S. Environmental Protection Agency (U.S. EPA) as the "sole or principal" source of drinking water for an area. A SSA must supply at least 50 percent of the drinking water consumed in the area overlying the aquifer, as well as other communities served by this water supply. U.S. EPA guidelines also stipulate that the service area can have no alternative water sources which could physically, legally, and economically supply all of the water currently supplied by the aquifer. The program was established under the U.S. Safe Drinking Water Act of 1974.

Based on a study conducted by Layne Hydro, a consultant hired by the City of Champaign, the City is confident that the boundaries of the Mahomet Aquifer are well-established, documented, and clear; the service area is mapped and understood; and there are no economically viable alternatives to this supply for the communities in this part of Illinois. The City, therefore, believes that the Mahomet Aquifer meets the requirements for SSA designation.

Q: How many communities consider the Mahomet Aquifer their sole source of water?

A: There are at least 120 public water supplies that draw from the Mahomet Aquifer as their sole source of water. Illinois American Water Company in Champaign also provides water from the Aquifer to several communities outside the boundary of the Aquifer. Communities using the Aquifer for their sole source of water include the communities of Champaign, Urbana, Savoy, St. Joseph, Bondville, and Pesotum. Wholesale customers of Illinois American Water Company in Champaign include: Tolono, Sidney, Philo, Seymour Water District, Tuscola, Arcola, and the Embarras Area Water District. Cerro Gordo (Piatt County), Petersburg (Menard County), and Virginia (Cass County) also withdraw water from the Aquifer. (Normal and Decatur withdraw less than 50% of their water supplies from the Aquifer, and Decatur withdraws from the Aquifer only in an emergency. Therefore, they are not included in the petition.)

Q: Can the public participate in U.S. EPA's designation decision process?

A: Yes, the public can participate by attending EPA public meetings or hearings, or by providing written comments to EPA during a formal comment period. The U.S. EPA's public comment period provides the opportunity to provide information on technical factors related to SSA designation criteria. Prior to the comment period, the U.S. EPA prepares and makes available to the public a "support document" that outlines the technical and legal basis for a proposed designation. As soon as the City is aware that a public hearing is scheduled the City will send out a new release, update social media, and provide information on CGTV Channel 5.

Q: What happens after an aquifer is designated?

A: According to the Safe Drinking Water Act, projects that receive "federal financial assistance" and which have the potential to contaminate the aquifer "so as to create a significant hazard to public health" are subject to U.S. EPA review and approval.

Federal financial assistance can be any financial benefit provided directly as aid to a specific project, program, or action through a written agreement by a department, agency, or instrumentality of the federal government in any form including contracts, grants, and loan guarantees. Actions or programs carried out by the federal government directly or actions performed for the federal government by contractors (unless specifically for the purpose of providing financial assistance), are

not considered federal financial assistance.

The U.S. EPA would ask for changes to a project only when it would pose a threat to public health by contaminating an aquifer to the point where a safe drinking water standard could be exceeded. Occasionally, weak ground water protection standards, poor project design, or site-specific concerns for ground water quality lead to specific recommendations or requirements. However, if the U.S. EPA decides that a particular project might harm public health, the funding applicant has the opportunity to modify the project.

Whenever feasible, the U.S. EPA coordinates project reviews with various federal, state, and local agencies that have a responsibility for ground water quality protection. This helps everyone involved learn more about the project, local aquifer hydrogeology, and the latest ground water protection tools and pollution prevention techniques available. This coordination helps ensure that any U.S. EPA reviews will enhance or support, rather than duplicate, existing ground water protection efforts. There have been cases where federal funding has been denied when an applicant has been either unwilling or unable to modify a project to protect an aquifer. Such denials are rare, however.

The EPA has reviewed major highway improvement projects, new transit centers and park-and-ride lots, public water supply improvements, wastewater treatment facilities, projects that involve animal wastes, and housing subdivisions and other building construction projects that are not served by public water, sewer, and storm water drainage systems.

Projects funded entirely by state, local, or private entities, or those funded solely with federal funds for federal agencies are excluded from the review process. However, all projects must comply with relevant water quality requirements at the federal, state, and local levels.

Q: To what extent does the EPA review agricultural projects?

A: The U.S. EPA's role regarding agriculture and the SSA Program has traditionally been to coordinate with the USDA funding agency to ensure that existing federal, state, and local ground water quality measures are being followed. The U.S. EPA may ask the funding agency to make sure that the applicant is aware of, and follows, the most appropriate agricultural management practices which are feasible.

For example, livestock operations seeking federal loans for herd expansions could be reviewed to ensure that adequate animal waste management facilities are first in place to handle the additional waste and that any applicable permits or state guidelines are followed. It should be noted that agricultural operations that seek federal funds often do so to "improve" existing practices or facilities, which improve water quality, and should not be significantly impacted by an EPA review.

For more information - ci.champaign.il.us/aquifer.